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ABSTRACT

William James drew a distinction between knowledge of a subject (experiential knowledge gained in every trade and profession) and knowledge about a subject (knowledge resulting from sustained, systematic study or scholarship). Scholarship plus workmanship serves to integrate both kinds of knowledge. The document contains three papers which present the following issues central to both adult education and James' statement: (1) where to look, (2) need to know, and (3) what to know in relation to knowledge of and knowledge about adult students. The paper on where to look describes demographic and psychographic analyses and the use of a marketing needs approach to provide information in relation to knowledge of and knowledge about the adult learner. The second paper discusses knowledge of and knowledge about an adult student's need to know which is seen as concerned with the human as well as economic developmental stages of the adult learner and calls for a flexible learning situation (including experiential learning) to meet those needs. The third issue concerns what to know and its many dimensions including curriculum and appropriate instructional strategies. A task force approach for designing a more flexible learning environment is described. (Author/MS)

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CONNAITRE AND SAVOIR:
SCHOLARSHIP AND WORKMANSHIP

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to the

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INTRODUCTION

William James drew a distinction between "knowledge of" and "knowledge about," a subject that continues to echo in the minds of concerned educators. "Knowledge of" is knowledge-by-acquaintance, the kind of experiential knowledge gained in every trade and profession. "Knowledge about" leads to deeper understanding, comprehension, and synthesis and is a result of sustained, systematic study; in short, scholarship. Scholarship plus workmanship serves to integrate both kinds of knowledge.

Three issues central to both adult education and James' statement are considered in the following pages. The issues addressed are: (1) where to look; (2) need to know; and (3) what to know in relation to adult students.

Where to Look is served by a marketing-needs approach. Like Janus, adult educators must look ahead to where they should be going as well as to where they have been. What does demographic and psychographic analysis tell us about the process of educational change as it relates to student, community, and institution--to work, study, and leisure?

Need to Know concerns itself with the human as well as economic developmental stages of the adult learner and provides a flexible learning situation to meet those needs--including experiential learning.

What to Know has at least two facets--curriculum and delivery. Each suggests a task force approach to learning. Curriculum raises the question of what to teach whereas delivery raises the question of how to teach. What to teach must be predicated on one's philosophy of education. Traditionally, curricula have been intended to prepare a student to "earn a living and live a life"; not as mutually exclusive endeavors, but as a synergetic activity. How to teach, on the other hand, involves all those decisions regarding how learning may be enhanced by delivery options available to the instructor. It is the delivery facet that is the subject of this paper.

As educators we have both "knowledge of" and "knowledge about." How will this direct our efforts toward the education of adults during the coming years?

Where to Look

Dr. Eugene H. Fram

The major thrust of this presentation centers on the basic question of what should we have "knowledge of" and what should we have "knowledge about," as these terms relate to the adult learner. At first glance, this distinction may seem to be a semantic debate which can lead to nothing pragmatic in terms of our interest in adult education. However, there is much to be learned from this distinction and pragmatic understanding can develop from it.

"Knowledge of" information is descriptive in character. It tells of people as one may see them on the surface. It leads to analysis of facts such as age, height, weight, color of hair, etc. These facts can be basically important to describing client groups. For example, we relate to the traditional college student as being between the ages of 18 and 22. On the other hand, "knowledge about" implies a deeper understanding about the person, essentially a feel or empathy for his problems and concerns. It is a basic tenet of the marketing fraternity that one is successful in any endeavor only when solving problems for people. Consequently, "knowledge about" is a critical tool for those concerned with adult education because it leads us to an understanding of the real problems faced by our constitutents.

In short, what is being suggested is that we have a great deal of information in relation to "knowledge of" the adult learner, but "knowledge about" needs much more consider-

ation. The reason for focusing on "knowledge about" is that it leads to deeper understanding about our clients and enables us to better understand his real needs, wants, and perceptions plus our ability to supply long/short range benefits to him.

Like the education community, the business community is faced with a similar problem. It is relatively easy for the business firm to obtain "knowledge of," only we refer to it as demographic data. This includes various descriptive information related to our various customer populations. But this often does not tell us why our customer buys or reacts, except in some obvious ways like warm clothing is needed in Alaska. Nevertheless, demographics are important to consider; witness the coming decline in numbers in traditional college age groups.

To get "knowledge about" our customers, we have adapted another technique for segmenting our clients. This is what is referred to as psychographic analysis which responds to customer groups as to the way they behave. We then analyze behavior patterns to give us some depth clues as to why people purchase. With this understanding, the businessman is in a better position to solve problems for their clients. A classic study using psychographic analysis involved the wristwatch market. The results showed that purchasers psychographically divide themselves into three behavior groups:

1) those who purchase the cheapest watch that works.
2) those who buy for meaningful emotional qualities.
3) those who purchase for good workmanship and long life.

It is readily apparent that this approach has more meaning when one reacts to them in a marketing sense. An institution using psychographics gets at the behavioral aspects which really count in understanding. Most important, a college/university with psychographic information can provide students with what is critical to their needs and wants both short and long range.

It is evident that the wristwatch market is not the post-secondary market and marketing a tangible may be different than marketing an intangible like higher education. However, some schools have applied psychographics with good results. One was a community college for which I served as a consultant. Several years ago, this school wanted to increase its adult education population; in fact the need was critical to improve the numbers by 200 FTE's at the beginning of the school year. The college first posed the question as to how they could better service the 22 to 25 year-old age group. However, in working through this problem, it soon became evident that the demographic grouping of 22 to 25 had little meaning to their needs. Consequently, they decided to examine the behaviors of various groups who could benefit from their resources. After some analysis they developed groups such as:

1) housewives with children, without job skills, who wanted to enter the job market.
2) people who wanted to change careers.
3) persons who wanted to prepare for retirement.

After several months of contact with these various constituencies, they developed programs which in turn provided more than 400 FTE's; a little more than double their minimum goal.

The objective of determining a potential clientele by a psychographic analysis and classes has a great deal of merit, but the process is not a simple one. Sometimes, like in the instance provided on the preceding page, the divisions are readily available. However, in other instances the psychographic divisions can be rather subtle.

To apply this type of thinking to our own school, Rochester Institute of Technology, we decided to talk to a group of adult learners and to assess their problems and joys in attending the College of Continuing Education at RIT. In this action research, we personally interviewed 53 adult learners, on a random basis, in the halls using a group of open-end questions. We would like to share some of this information with you, but we provide it with the caveat that it is not definitive research. Rather, it provides data of how adult learners really view their education. Our purpose in doing this work is to provide some hypotheses for further study and to provide some practical examples of psychographic analysis. I will show the outcomes of the first question, and my colleagues will demonstrate the implications of the remainder of the findings.

The first question we asked was "How do you feel about having a job and going to school at the same time?" Replies divided themselves into two major categories between those who

enjoyed it and those who didn't. A major point for those who liked going to school part-time was the ability to do several things at once. Typical replies which contain some behavior of interest were the desire to provide some contrast in the learner's life. This related to comments such as:

"When I get tired of work I have school"

"I don't like going to school full-time"

"It provides contrast to life"

From these comments, it becomes apparent that adult learners desire intellectual contrast in their lives and that the college/university can service a need in providing this service. It can be tentatively interpreted that the experience of going to school concurrently with earning a living is viewed by a significant segment of students as providing a stimulating balance with their daily routines. Assuming this data were to be substantiated by more rigorous analysis, it can provide our administrators with a better understanding of the needs of many of our students; and consequently our activities should be analyzed in terms of how well we provide intellectual contrast. In fact, since daily work routines appear to be a problem, as described by Studs Turkel in his book Working and others, it would appear that the post-secondary institution can make a significant contribution to society in the many cases where the "Joys of Work" will continue to diminish over the coming years.

On the negative side, the adult learners in our group also complained about being tired when going to school.

Typical comments were:

"It's tiring. I'm tired all the time."

"It's tiring, but fun."

"Not enough time to devote to school or work "

These comments raise the issue of what our institution, or any institution does to relieve the inherent tiredness of the adult learner. There are many things that could be done, ranging from providing food service without hassle to making certain that faculty approach classes with sensitivity to the tiredness the student brings to the classroom.

If our adult learners are typical, and our action data substantiated, it would seem that two psychographic groups have emerged from our investigation. One is the group that looks upon learning as an activity which contrasts their daily work routine and provides dessert to the meat and potatoes of the work-a-day world.

The other, not necessarily mutually exclusive, needs support to reduce fatigue. It would seem that in preparing our examples for this symposium we now have some "knowledge about" our adult learner that was not really on center stage before. We have understandings which require some unusual reaction on the part of adult educators. These understandings show that no matter how well we would have analyzed the "knowledge of" data, we would have been lacking some important elements in our view about our clients. Consequently, getting back to our view of "knowledge of" and "knowledge about," we can conclude that we are not involved in a semantic debate,

but rather describing two distinct types of knowledge that have pragmatic implications for all of us.

NEED TO KNOW

Dr. David E. Hooten

Identification of our students is an essential ingredient in the process of delivering adult education and improving adult learning. However, there are other matters to be considered--need to know is one. Need to know, it seems to me, concerns itself with the human and economic states of the adult learner which we have generally come to consider under the rubric of Adult Developmental Stages. From the institutional standpoint, it would seem that one of the most important generalized observations from the literature of Adult Developmental Stages is the necessity for providing flexible learning situations to meet the diverse needs of adult students. This section of the presentation will hopefully point to some directions which institutions should follow in the education of adult students as well as suggest topics for future research.

A second question asked in the survey mentioned earlier by Dr. Fram was, "What Do You Think RIT Can Do To Better Meet Your Needs as an Evening Student?" Table I lists, in descending rank order the responses of our students to this question.

TABLE I. WHAT CAN RIT DO TO BETTER MEET STUDENT NEEDS?

1. "Creature Comforts"
   - improved snow plowing
   - less steamed food
   - more security lights
   - bus transportation from outer parking lots
   - more lounge areas
2. Hire faculty who are better teachers
3. Provide more space for storage of projects
4. More personal counseling
5. Help get family more involved
6. More electives and fewer redundant requirements
7. Nothing -- RIT could not be better
8. More current information in technical courses
9. Make programs more relevant to work experience
10. Better follow through on new curricula

Those of you associated with the education of adult students have probably found nothing surprising in these comments. They certainly indicated that there were some things that we, as practitioners of adult education at RIT, could do, and there were some institutional matters at RIT which needed to be addressed. What was perhaps of most importance was the wide variety and extreme diversity of the responses elicited. To me, many of the reasons for this diversity can be found in the literature of Adult Developmental Stages. The literature is not extensive, but it is pervasive. Adults, as well as children, appear to move through a variety of successive stages which effect how and what they learn. Thus, educators, if they are to be optimally effective, must address the needs suggested by each of these stages in the implementation of any teaching/learning process.

The thesis of this paper, therefore, is that through "knowledge about" Adult Developmental Stages, plus data from action research such as we have effected here, educators can understand adult learners better, and subsequently, provide the kinds of educational experiences which will lead to increased amounts of learning on the part of large numbers of adult students.

To be more explicit, I would like to summarize and apply the findings of three theorists who have researched Adult Developmental Stages. In addition, the work of Erickson and Neugarten regarding life cycle formulations as they relate to Adult Developmental Stages will be discussed.

Tables II, III, and IV summarize the work of Gould, Levinson, and Sheehy regarding developmental ages.

TABLE II. DEVELOPMENTAL AGES - LEVINSON (1974)

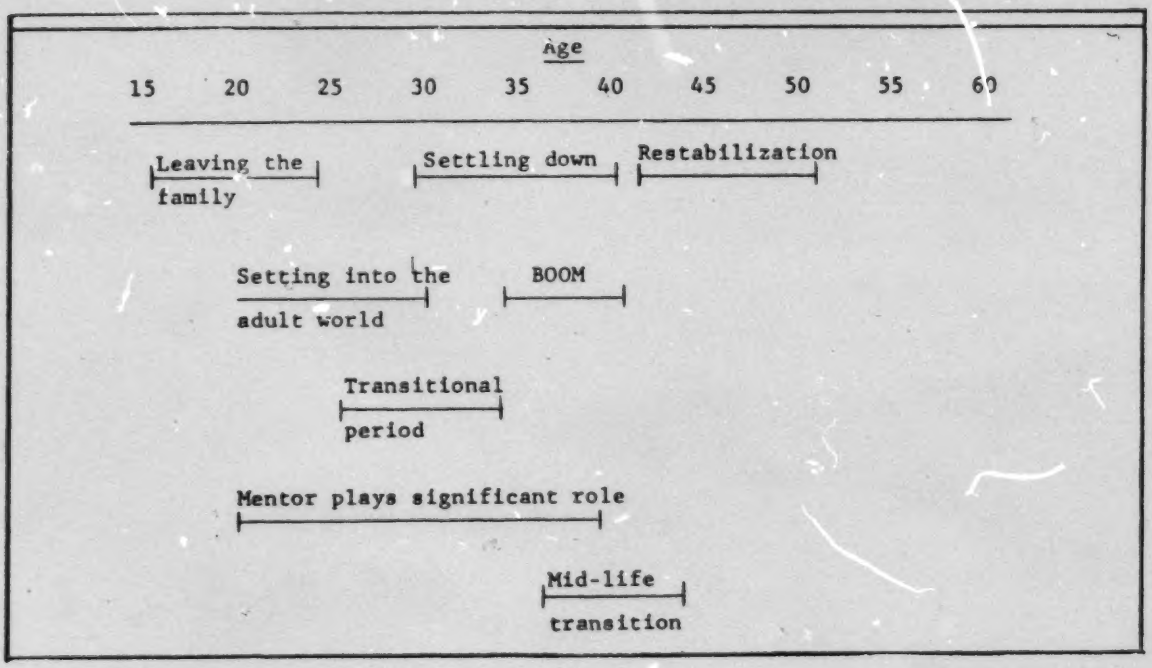


TABLE III. DEVELOPMENTAL AGES - GOULD (1972)

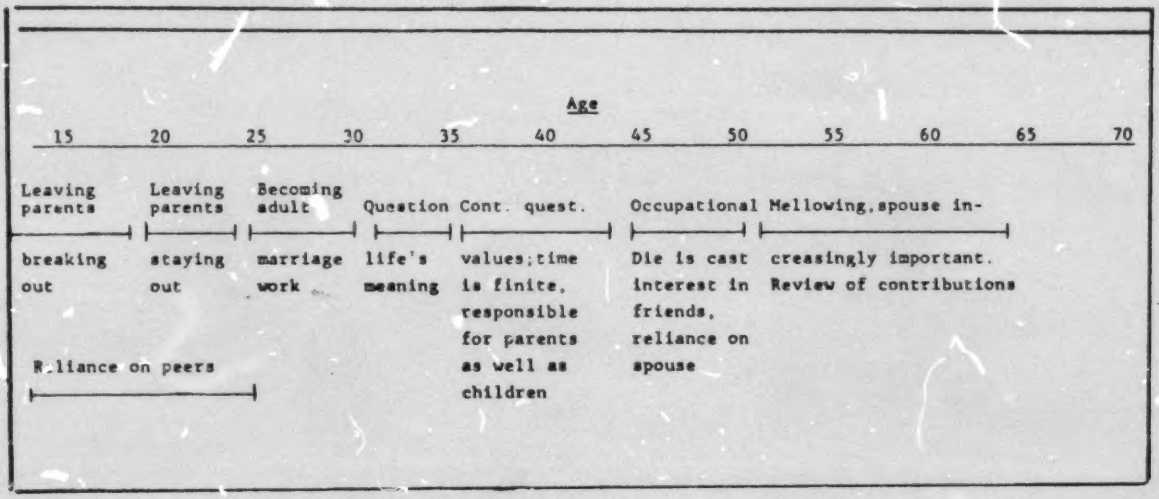
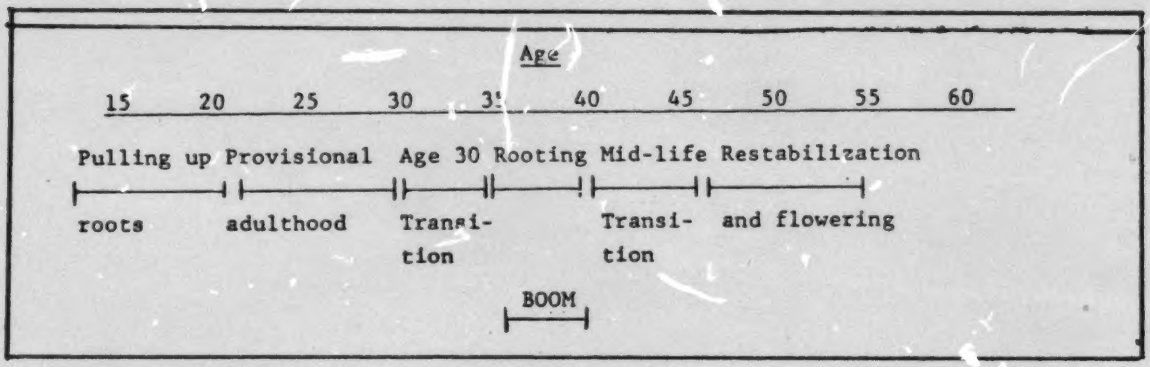

Age
15 20 25 30 35 40 45 50 55 60 65 70
Leaving parents breaking out
Leaving parents staying out
Becoming adult marriage work
Question life's meaning
Cont. quest. values; time is finite, responsible for parents as well as children
Occupational Die is cast interest in friends, reliance on spouse
Mellowing, spouse increasingly important. Review of contributions
Reliance on peers

TABLE IV. DEVELOPMENTAL AGES - SHEEHY (1974)



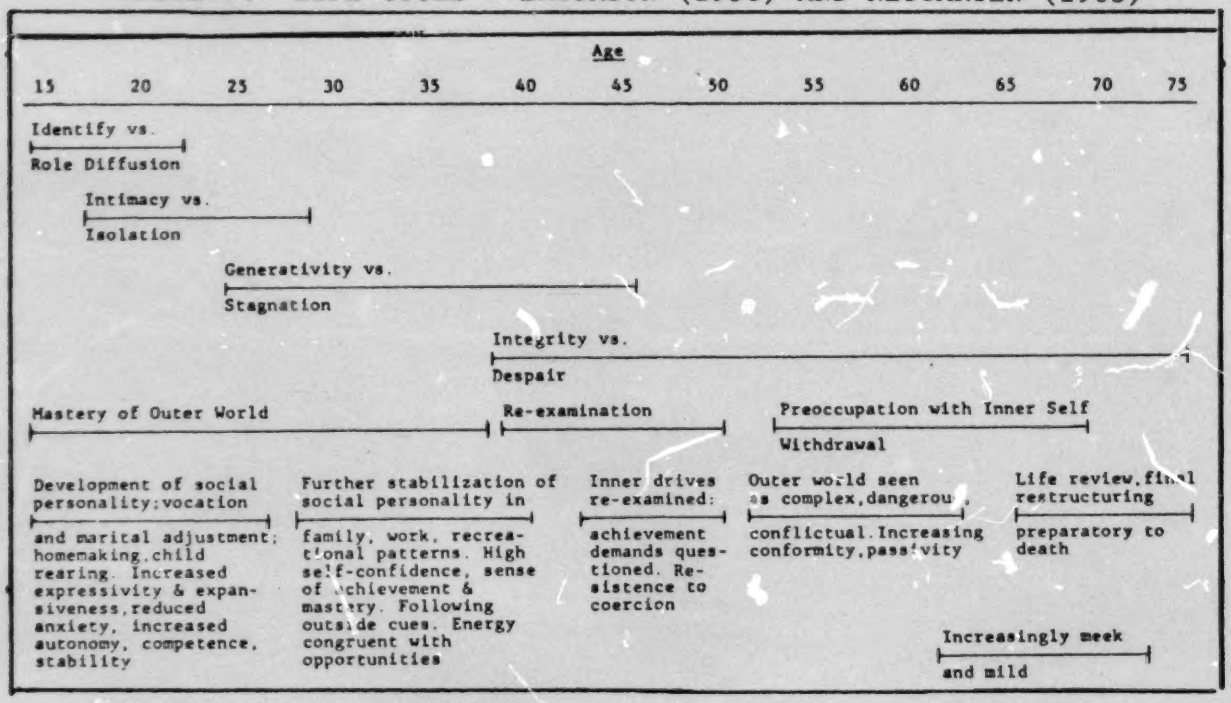
These theorists describe a general pattern which begins with the transition from adolescence to adulthood during the late teens and early twenties. During the mid-twenties--a period of "Provisional Adulthood"--first commitments to work, marriage, family, and to other adult responsibilities are lived out. Then, another transitional period occurs during the late twenties and early thirties where these initial commitments are re-examined and questioned. The long range

implications of continuing with the current work, spouse, community and life style have become apparent and one or more of these may look less challenging or satisfying than they did at twenty-two. In some cases, changes must be made. In others, reaffirmation and commitment occurs on a more solid basis: sometimes after trial flirtations with one or more alternatives.

The thirties are a time for settling down, achievement, becoming one's own person. But as the forties approach, time then becomes more finite. Responsibility for parents begins to be assumed while responsibility for college age children continue. The likely limits of success and achievement become more apparent and the "Mid-Life Transition" is at hand. Major questions concerning priorities and values are examined. Unless a change in work is made now, the die is cast. Affirmation of the earlier career most frequently occurs, but with moderated expectations and drive. A long standing marriage may be temporarily or permanently upset. Friends, relatives and spouse become increasingly important as restablization occurs during the late forties and early fifties. Interests foregone in the service of work receive more attention. Mellowing and an increasing investment in personal relationships characterize the fifties.

Neugarten's work is built on Erickson's seminal formulations concerning the life cycle. Table V summarizes some of her findings juxtaposed with Erickson's major adult states.

TABLE V. LIFE CYCLE - ERICKSON (1950) AND NEUGARTEN (1963)


Age
15 20 25 30 35 40 45 50 55 60 65 70 75
Identify vs.
Role Diffusion
Intimacy vs.
Isolation
Generativity vs.
Stagnation
Integrity vs.
Despair
Mastery of Outer World
Re-examination
Preoccupation with Inner Self
Withdrawal
Development of social personality; vocation and marital adjustment; homemaking, child rearing. Increased expressivity & expansiveness, reduced anxiety, increased autonomy, competence, stability
Further stabilization of social personality in family, work, recreational patterns. High self-confidence, sense of achievement & mastery. Following outside cues. Energy congruent with opportunities
Inner drives re-examined: achievement demands questioned. Resistence to coercion
Outer world seen as complex, dangerous, conflictual. Increasing conformity, passivity
Life review, final restructuring preparatory to death
Increasingly meek and mild

Neugarten, more than any other theorist, elaborates the role of age and timing in adult development. The shift from "time since birth" to "time left to live" sets boundaries for other major changes: from sense of self determination to sense of inevitability of the life cycle; from mastery of the outer world to re-examination, withdrawal, and preoccupation with inner self and sponsoring others; from achievement to self-satisfaction. She found that when normal events were "on time"--children leaving home, menopause, death of a spouse, even one's own death--they were not experienced as crises. Departure and death of loved ones causes grief and sadness as does the prospect of one's own leaving, but when it occurs at times and in ways consistent with the normal expected life cycle, most persons manage the event or the prospect without

major upset.

These various studies tell us much about experential learnings, or "knowledge of," which occur throughout the life cycle. They identify major motives--dilemmas, interests, aspirations, circumstances--which lead students to pursue further education. They suggest some fundamental concerns and developmental tasks which lie behind the desire for a degree. The pursuit of a better or different job, the wish to read more widely or to experience more deeply, to meet new persons and new ideas, to explore dimly seen horizons.

What, then, are the implications of all of this to the learning of adults and to us as adult educators? The data concerning developmental stages and the life cycle, to me, help us to think more soundly about content and process. They clarify the larger motives behind the investments of time, money, and energy behind the personal sacrifices made by many students. They show us the more fundamental purposes that power degree aspirations--pursuit of promotion or career change, desire to meet new persons, read more widely, explore new ideas and interests. They remind us that the existential questions of meaning, purpose, vocation, social responsibility, dependence, and human relationships which so many teenagers face with difficulty are reconfronted by many thirty, forty, and even sixty year olds. Our curricula must recognize and facilitate this process if students are to truly have their needs met.

With such information in our working knowledge, we can more effectively distinguish between those whose aim is simply professional training and those for whom professional concerns are more oriented toward clarifying the major expectations of a job and a career pattern associated with it. We can better recognize that the thirty-five year old who comes for clearly specified professional knowledge or competence needed for a promotion or a new opportunity will define a program and approach it very differently from the forty-five year old who wonders whether all those long hours, family sacrifices, short changed human relationships, and atrophied interests are really worth it. Both of these students will be different from the twenty-five year old eagerly exploring the potentials of first career choice. The thirty year old housewife, whose husband thinks she should become more sophisticated, develop more interests, get out more, and define her own career will be very different from the twenty-five year old just settling into the challenges and satisfactions of new babies and a new home, and from the fifty year old who is building a more rich and easy existence with a devoted husband.

Nearly all the data derived from our action research reflect these differing needs by the wide variety, and often inconsistent, responses to questions. Adult students, typically representing a broad age range, reflect disparate aims and purposes of education which make, increasingly complex, the educational process. By recognizing these

general patterns and responding to individual differences within them, our ability to help students identify their own motives and educational needs will be enhanced substantially. Educational activities more often will be on target: programs can be more effectively planned as well as the more general issues concerning staffing, resources for learning, and evaluation.

To return to my thesis it is necessary for us as adult educators to have "knowledge about" as well as "knowledge of" Adult Developmental Stages. It appears that these Stages may hold at least one of the keys to program planning for effective adult learning. Planning for both the curriculum (content) and the process (delivery). To succeed we must provide a flexible structure; a structure that can accomodate a variety of learning opportunities.

After having grappled with "Where to Look" for information regarding students, and addressed the issue of what the adult, "Needs to Know," it is necessary to consider "What to Know" in terms of both delivery and wholistic learning.

WHAT TO KNOW

Dr. Richard D. Zakia

It has been pointed out that as concerned educators we need to know more about our current adult learners, about their developmental stages and the need to examine more flexible learning environments to meet their diverse technical and human needs. We have also been reminded of where to look and how to get psychographic data about our students so that we can share a deeper understanding about them as persons and develop an empathy for their problems, concerns and aspirations.

The third issue is concerned with what to know and its many dimensions including curriculum and appropriate delivery or instructional strategies. Since I am presently involved in what has come to be called Instructional Development, I would like to focus on how we might use our "knowledge of" and "knowledge about" the educational process to improve the quality of adult education by improving the delivery system we use to instruct. To do this, I will refer specifically to three different delivery systems we have used successfully at RIT to teach history, psychology, and photography. But before I do, let me set the stage.

As educators, our day to day work experiences provide us with "knowledge of" the learning environment in which we place our students. We sometimes become so busy with the administrative side of education, however, that we run the risk of losing touch with students, particularly adult students,

and the obstacles they may be encountering regarding their schooling. Occasionally, it is good to get back into the classroom and obtain some informal information directly from students. I believe periodic teaching experience is as important to good administration as periodic research is to teaching. Both provide a change and an opportunity to gain "knowledge about" the learner.

Described earlier was the action research we conducted to obtain current information on our students. For the most part this confirmed what we already knew or anticipated. One of the questions that related directly to delivery systems was:

"How does your (family/spouse) feel about your going to school in the evening?"

The responses were rather interesting and as you might guess, diverse. The diversity, of course, reflects the variety of students we have, their interests, abilities and expectations. If we were to select the responses that fell into positive and negative categories, we would find:

1) Positive responses like "generally, they are happy I'm making the effort" to "he's happy I'm getting out two nights a week." (This second response leaves itself open to all kinds of interpretations.)

2) Negative responses like "they wish it wasn't so many evenings--they like Saturday and Sunday classes better" to "the kids can't understand and it hurts."

The positive responses are reassuring, but the negative responses challenge us to experiment--to help these students whose schooling places an added burden on their home life. "Knowledge about" how students learn, particularly mature adult students provide opportunities for innovation. Adult students are less dependent upon conventional classroom instruction than their younger full-time counterparts. They will embrace an instructional technology approach to learning if it is well-planned and executed and if it provides them convenience--if it allows them more time with their families and choice of when and where they can learn. In effect, we were told this when we asked, in our survey, "How do you feel about being here at RIT tonight?" Their answers in most cases were couched in sarcasm, cynicism, and resignation. They didn't like it but what was the alternative? It seemed to be the best investment in the long run. They have become so conditioned to the traditional system of education, they seemed numb and accepting, as if it were inevitable and there were not alternatives. Armed with the knowledge from our survey and psychological knowledge about human development and learning, we began to tailor-make the delivery of some of our courses.

This required a task force approach that was orchestrated by the faculty and administration involved and educational support and development. This division consists of a closely knit support group for all of the colleges made up of instructional development, the library, audio-

visual services, and the media production center. The procedure followed is a familiar one to you, consisting of a cycle including: statement of the problem, developmental planning strategies, implementation, evaluation, and revision and modification.

On our campus, the statement of the problem and planning strategy was a joint effort of the faculty, administration and instructional development. Implementation involved the purchase of existing media or production of custom made programming when pre-produced media were not available. These task force services were provided by our Media Production Center and Audio-Visual Services. Utilization of media occurred in both our Library Media Resource Center and satellite learning centers distributed throughout several of the colleges. Independent evaluation was provided through the Office of Instructional Development. The results were then used as a basis for making necessary modifications to the newly designed learning system.

This task force approach provided an opportunity to design a move flexible learning environment for our students. So that they could choose the time and place for their learning, we mediated large portions of courses. Although different media was used in the psychology, photography and Modern American History courses, common to all was the fact that about half of the course was delivered through the appropriate use of media, while the other half sustained the irreplaceable and precious human interaction between teacher and student--

what our marketing colleagues affectionately call "belly-to-belly" contact. Half-hour video-cassettes were viewed by the students in the psychology course, programmed instruction by the photography students, motion picture, audio-cassettes and video-cassettes by the students in Modern America. We were fortunate in each of the courses to have had energetic, innovative and sensitive teachers. They had outstanding track records in a conventional classroom setting and, to everyone's delight, it was not diminished when they mediated their courses. Both student achievement and student attitudes were highly favorable. Perhaps the statement made in the internal report on "Guided Individual Study Using Television" to teach psychology best sums up our experience when instructional delivery systems using media are appropriately used to meet student needs:

> "The most important and precious thing in a learning situation is sufficient contact between student and instructor. Given this, students and instructors will respond favorably towards new formats of instruction, especially those involving technology. Without it, no form of instruction is adequate for human learning."

Providing instruction that is convenient for the student to access without sacrificing the quality of instruction is good in and by itself. But when a cost benefit is realized, that is a bonus. The enrollment for Modern America, after we mediated it, grew from ten students and one instructor, to 110 students and two instructors with no measurable loss in quality. Further, the course continues to increase in enrollment and has become a model for other

courses. The partially televised psychology course, designed to provide guided individualized instruction, also proved to be a cost savings since we were able to accommodate more students.

Of additional significance is the fact that many of our students chose to view the videotapes and films on weekends which was one of the distinct advantages of housing media in a Library. It was not unusual to see adult students with their children and wives viewing programs on a Sunday afternoon. Seeing a family together on a college campus, sharing an educational experience provides great satisfaction and inspiration that can guide us into the 1980's and the years beyond.